

## A New Oribatid Species of Liodidae from Mt. Hayachine in Northern Nippon

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**Abstract** A new species of *Platylodes* was collected from a natural forest of *Picea glehnii* at Mt. Hayachine.

**Key words:** Mt. Hayachine, new species, *Platylodes*, Oribatida

The author could investigate oribatid fauna at the natural *Picea glehnii* MASTERS forest of Mt. Hayachine in 2000, and found a new species of the family Liodidae. From Nippon, five species have been recorded, namely, *Liodes kornhuberi* (KARPELLES, 1883), *L. zimmermanni* SELLNICK, 1959, *Platylodes japonicus* AOKI, 1979, *P. macroprionus* WOOLLEY et HIGGINS, 1969, and *Polo-liodes farinosus* (C. L. KOCH, 1839) (FUJIKAWA, *et al.*, 1993; YAMAMOTO & YAMAMOTO, 2000).

*Platylodes montanus* spec. nov.

[Nipponese name: Miyama-hiratauzutakadani]

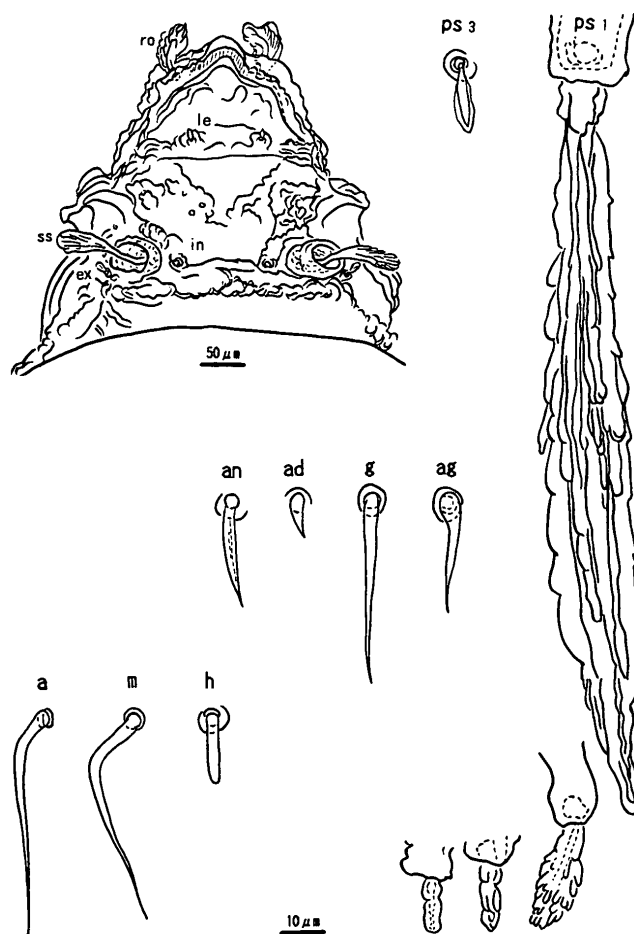
(Figs. 1–6)

**Measurements and color:** Body length, 950, 1035  $\mu\text{m}$  (2 adults) and 842  $\mu\text{m}$  (1 tritonymph); width, 500, 514  $\mu\text{m}$  (2 adults) and 485  $\mu\text{m}$  (1 tritonymph). Dark brown. Body bears immature scalps of which the tritonymphal scalp gives 1121  $\mu\text{m}$  in body length and 642  $\mu\text{m}$  in width.

**Prodorsum:** Prodorsum somewhat triangular in dorsal view, with immature scalps. Rostrum rounded, slightly protruding. Rostral setae inserted on antero-lateral margin of rostrum, composed of a thin stem and an swollen head which has a pebbled surface (Fig. 1). Lamellar setae fusiform, roughened and inserted on apophyses. Interlamellar setae ensiform. Sensillus clavate, composed of a thin stem and an expanded head which bears branches. Exobothridial setae fusiform bearing branches (Figs. 4A–D). Relative lengths and mutual distances of prodorsal setae: (*in-in*) > (*ro-ro*) > (*le-le*);  $ss \cong 1.5 \times ro$  > *in* > *ex*  $\cong 1.2 \times le$ .

**Notogaster:** The anterior margin slightly arched but

rather straight. The posterior margin triangular in shape, with two pairs of apophyses (Fig. 5A). The micro-



**Fig. 1.** *Platylodes montanus* spec. nov. (holotype). Setae and prodorsum in dorsal view. *an*: anal seta; *ad*: adanal seta; *g*: genital seta; *ag*: aggenital seta; *a*, *m* & *h*: anterior, median and posterior infracapitular setae, respectively; *ps* 1 and *ps* 2: dorsal seta of adult; the others: *ps* 1 of proto-, deuto- and tritonymphal scalps.

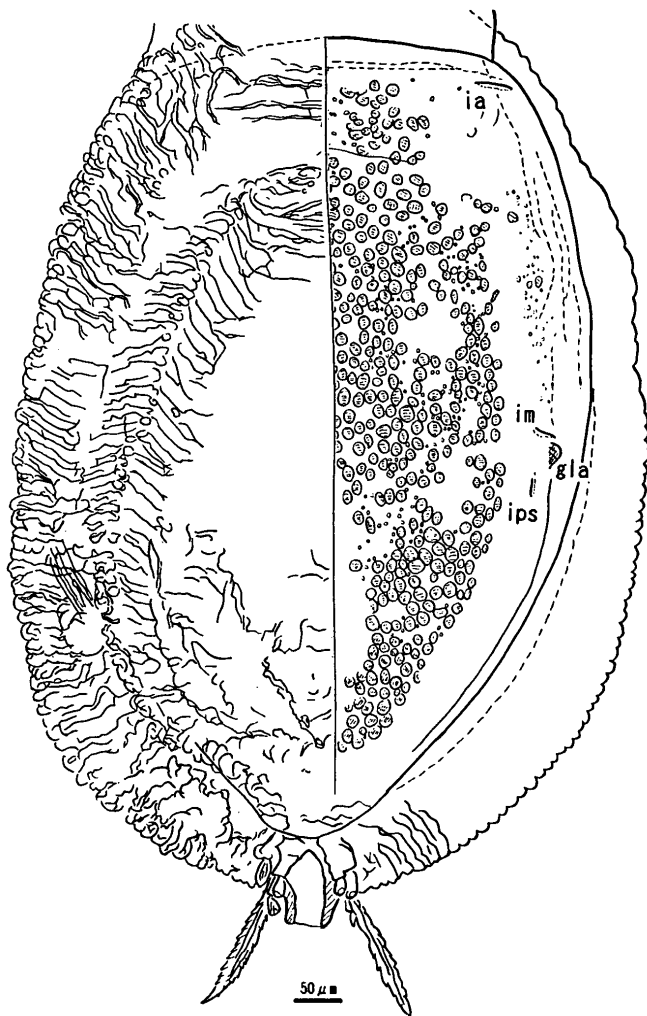


Fig. 2. *Platylodes montanus* spec. nov. (holotype). Notogaster in dorsal view with immature scalps and partly showing the surface of adult.

sculpture consisting of dark-colored pustules and light alveoli with small holes (Fig. 4E). Notogastral fissures, *ia*, *im*, *ih*, *ips* and *ip* large (Figs. 2 & 3); *ia* aligned transversely, *im* obliquely, *ips* and *ip* longitudinally, and *ih* along the notogastral lateral margin. Lateroabdominal gland broadly triangular in shape, situated between fissures *im* and *ips*. Four pairs of dorsal setae present; 2 pairs of posterior setae serrate, inserted on apophyses; the longer one about 11 × as long as *ps*<sub>2</sub> or *ps*<sub>3</sub>; *ps*<sub>2</sub> and *ps*<sub>3</sub> entire, slightly swollen (Fig. 1). Scalps of larva and three nymphs thin, bearing rugose microsculpture.

**Ventral region:** Ano-genital setae (2-3-7-1); setae smooth, spiniform. Lyrifissure *iad* aligned obliquely and *ian* longitudinally. Diarthric subcapitulum. Every infracapitular setae *a*, *m* and *h* smooth; setae *a* and *m* setiform; *h* bacilliform (Fig. 1); setae *m* strongly curved.

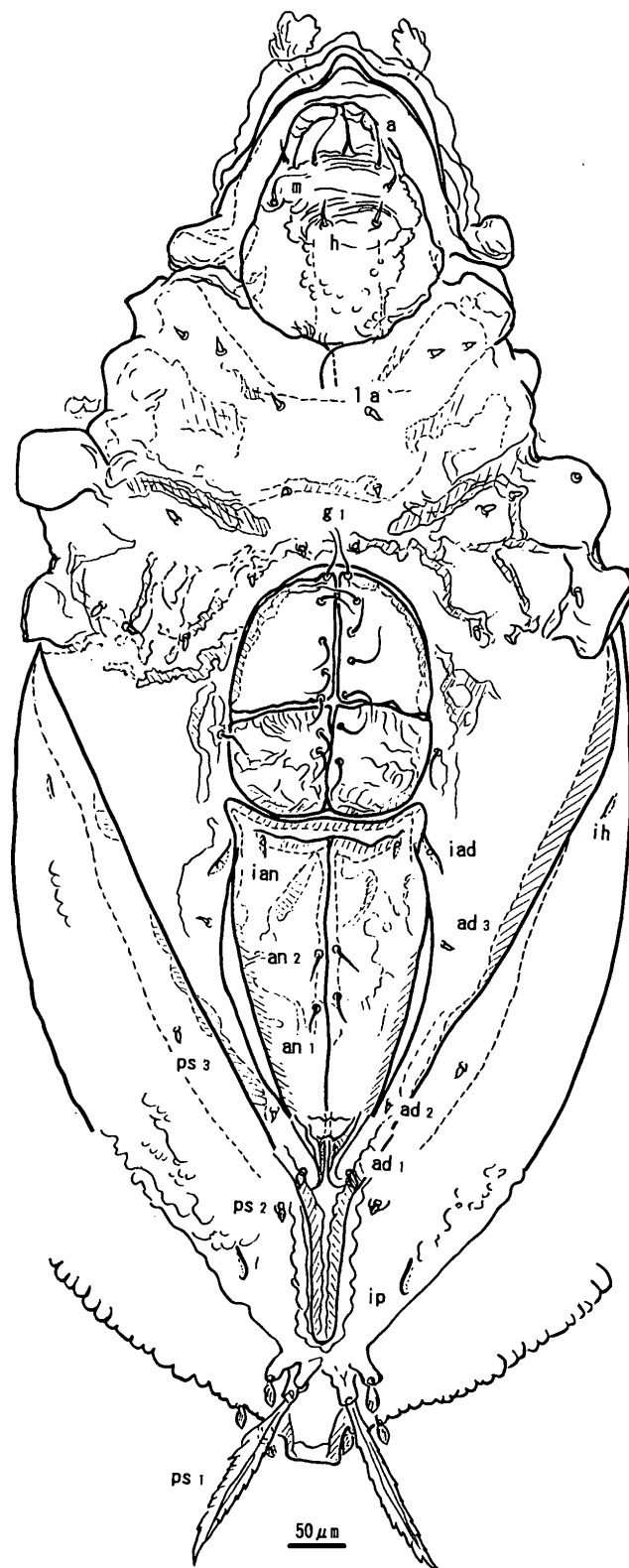


Fig. 3. *Platylodes montanus* spec. nov. (holotype). Ventral view.

Hysterostome widely sculptured along midline. Anterior epimeral margin split in two in the middle, being overlapping lobes (Fig. 4F). Epimeral setae penicillate. Apodemata well developed, however, sternal ridge in-

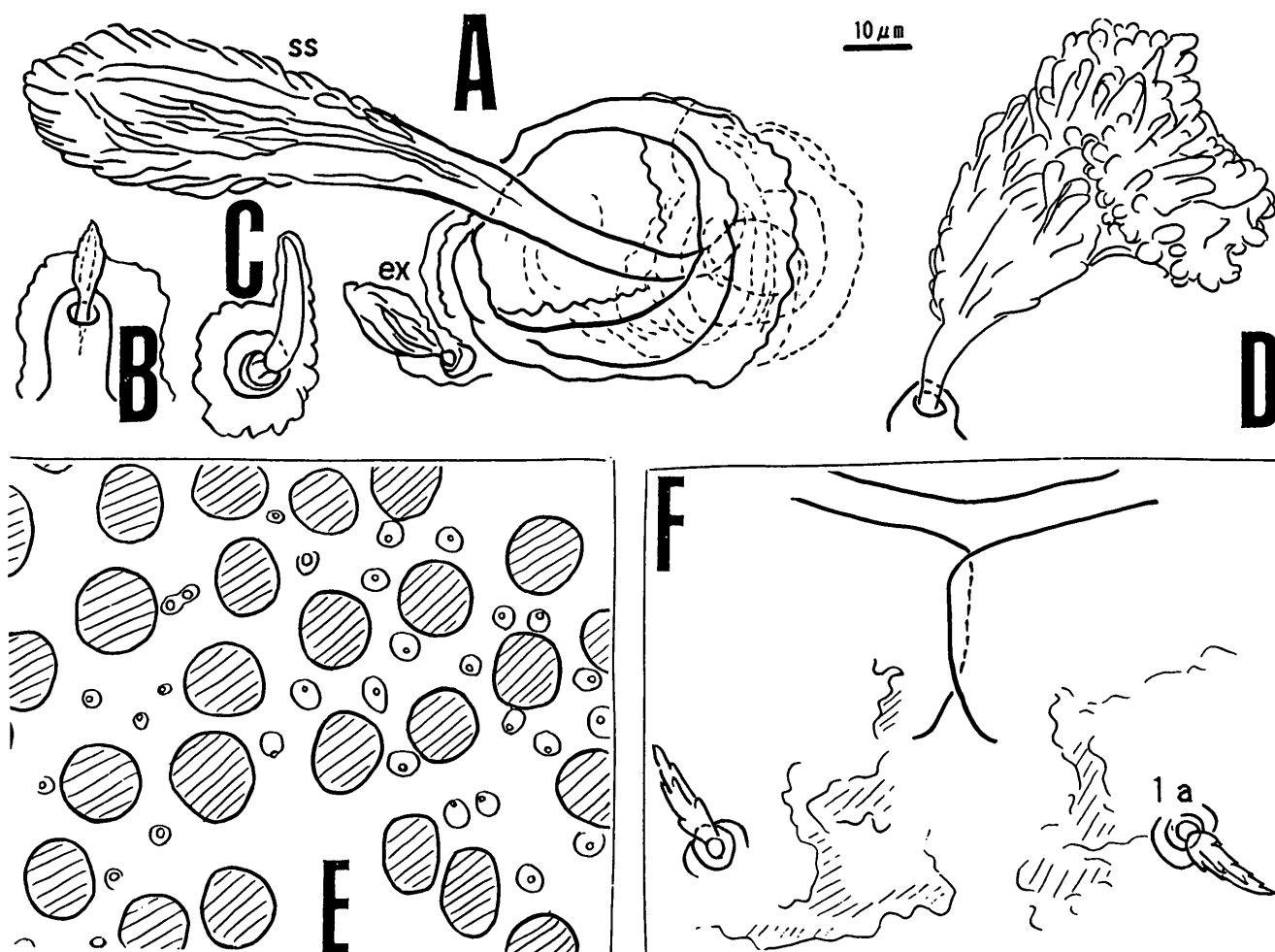


Fig. 4. *Platylodes montanus* spec. nov. (holotype). A, Left bothridial region; ss: sensillus; ex: exobothridial seta; B, Lamellar seta; C, Interlamellar seta; D, Rostral seta; E, Dorsal surface; F, Mentotectum region.

complete. Setal formula of epimerata: (3-1-2[3]-4[3]); variable in number. Setal formula of pedipalp excluding solenidion: (0-1-1-3-9); on tarsus, solenidion and anteroculminal seta thick, rod-like, inserted on apophysis; ultimal and superior setae thick and blunt at tip. Relative lengths of principal setae:  $a \cong m > g > ag > an > la > h > ad$ .

**Legs:** All legs homotridactylous; claws cylindrical at the middle portion, minutely dentate at dorsal and ventral sides. Leg chaetotaxy including famulus, but excluding solenidia: I (1-6-5-6-22); II (1-5-5-5-17); III (2-3-4-4-17[18]); IV (1-3-3[4]-4-15). Solenidiotaxy: I (1-2-2); II (1-1-2); III (1-1-0); IV (0-1-0). All setae inserted on apophyses. On tarsus I, famulus setiform and solenidia bacilliform; famulus inserted between solenidia (Fig. 5B). Tarsi I and II bearing 4 thick setae with branches. On tibia I, solenidia thin, bacilliform; dorsal

seta fusiform, minutely barbed, and pointed at tip. On genu I, solenidion bacilliform and dorsal seta short and thick with branches (Fig. 6).

**Material examined:** Holotype (NSMT-Ac 11184) (adult female) from lichens on the trunk of a tree at about 1 m above the ground surface in a natural forest being the southern limit of native *Picea glehnii* about 1,350 m above the sea, Mt. Hayachine in Iwate Prefecture, Nippon, 16-V-2000, Tokuko FUJIKAWA; 1 paratype (adult female) and tritonymph: the same data with the holotype, but 6-XI-2000 and tritonymph from litter on the forest floor. The holotype is deposited in Natural Science Museum, Tokyo and paratype and tritonymph in the Board of Education in Kawai-mura.

**Remarks:** As far as the author knows, the following seven species are recognized as members of the genus *Platylodes*: *P. doderleinii* (BERLESE, 1883), *P. ensigerus*

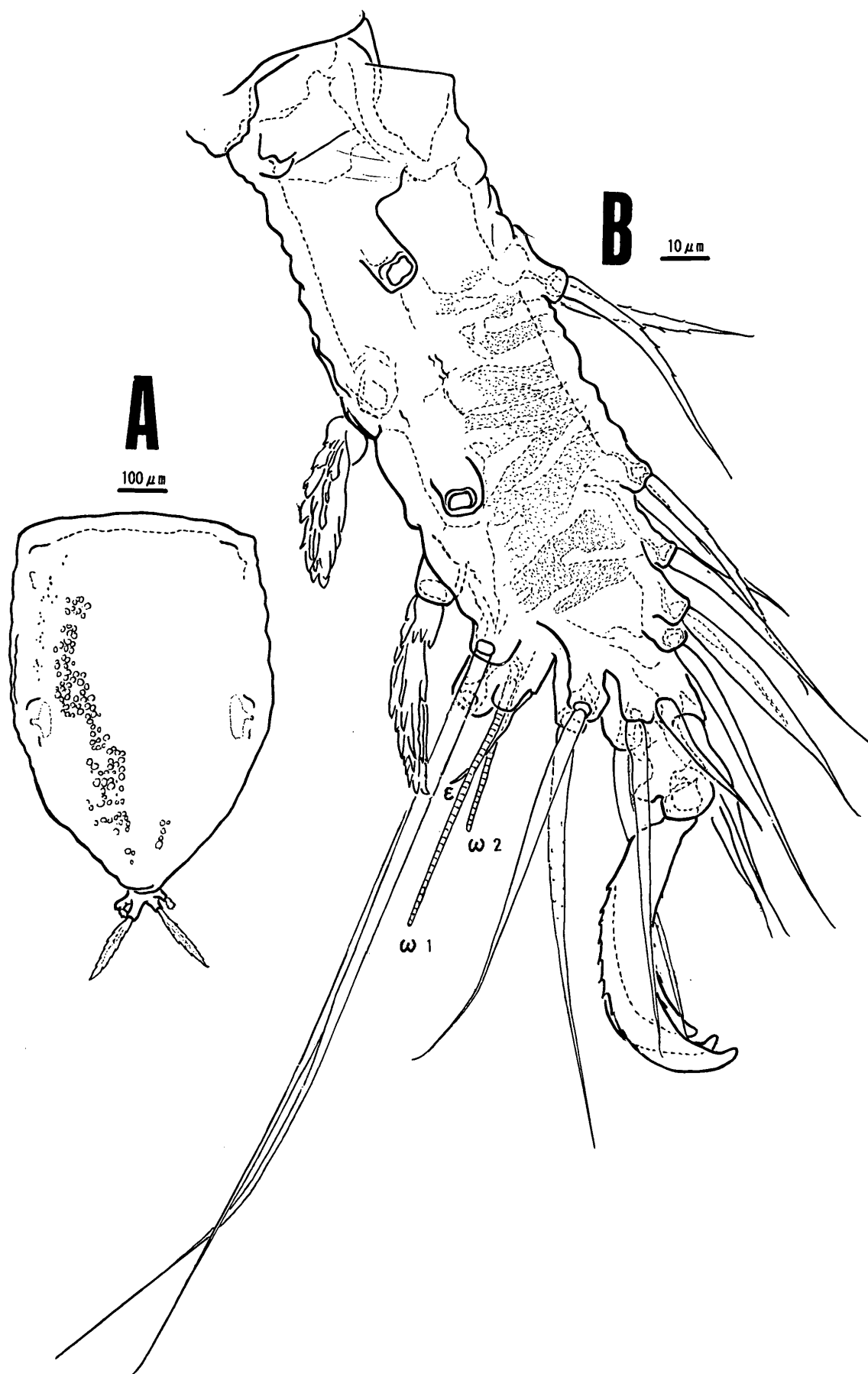


Fig. 5. *Platyliodes montanus* spec. nov. (paratype, adult). A, Notogaster in dorsal view; B, Right tarsus I.

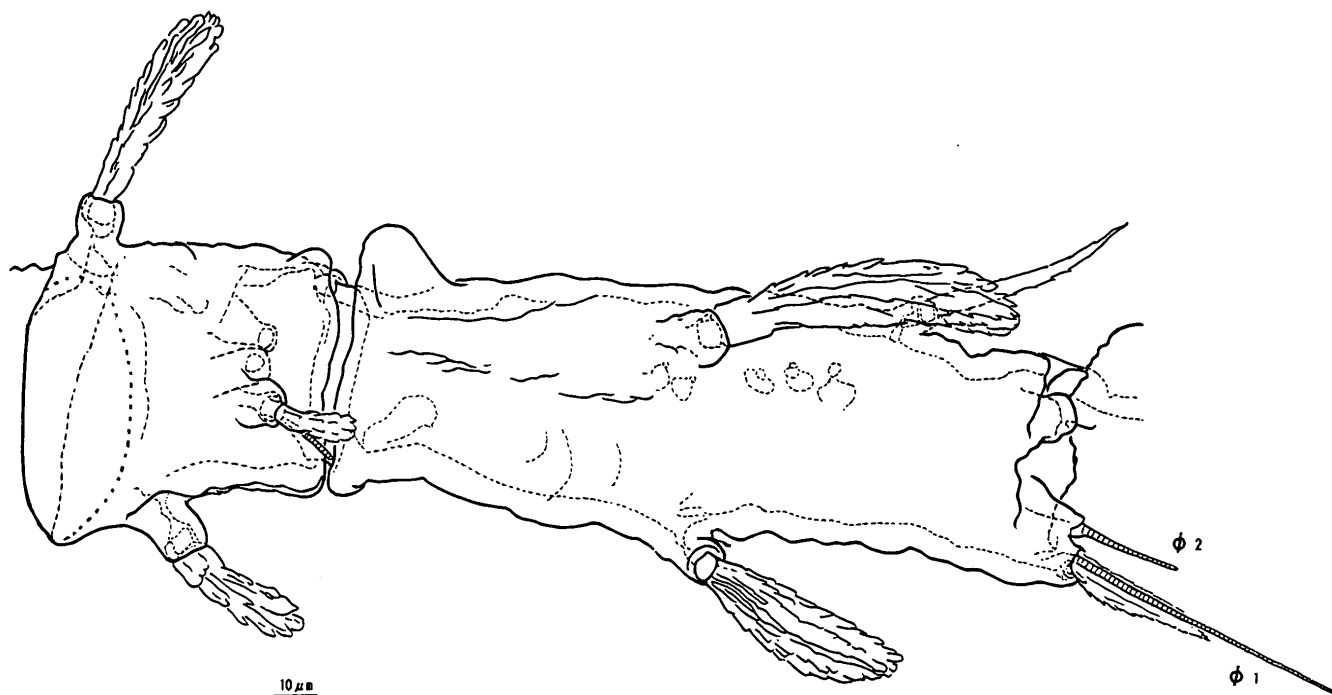


Fig. 6. *Platylodes montanus* spec. nov. (paratype, adult). Tibia and genu of right leg I.

(SELLNICK, 1919), *P. graecus* SELLNICK, 1969, *P. hoodi* EWING, 1909, *P. japonicus* AOKI, 1979, *P. macroprionus* WOOLLEY et HIGGINS, 1969 and *P. scaliger* (C. L. KOCH, 1839), sensu OUDEMANS (1937) and GRANJEAN (1934). The present species *P. montanus* spec. nov. differs from any other congeners in the sculpture of dorsal surface, and the shape of setae *le*, the mutual distance of setae *le*, length of setae *le* and *ps*<sub>1</sub>, and location of lyrifissure *ian*.

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#### 摘 要

藤川徳子 (〒960-2156) 福島市荒井字檀ノ腰30-5-201: 早池峰山からのウズタカダニ科の一新種

*Edaphologia* No. 68: 17-22, 2001.

アカエゾマツは樺太南端に北限を、そして岩手県早池峰山に南限を持って自生する樹種である。その自生南限地で2000年に土

壌動物の調査をする機会を得た。ササラダニ類については、ウズタカダニ科の一新種を採集したので、*Platylodes montanus* spec. nov. (新称 ミヤマヒラタウズタカダニ) として記載した。

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